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# A new genus, a new species, new combinations, and notes on synonymy and nomenclature in American Desmiphorini (Coleoptera, Cerambycidae, Lamiinae)

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# A new genus, a new species, new combinations, and notes on synonymy and nomenclature in American Desmiphorini (Coleoptera, Cerambycidae, Lamiinae)

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**Abstract.** An early, overlooked description of the genus *Atelodesmis* (Coleoptera, Cerambycidae, Lamiinae) is attributed to Chevrolat (in Duponchel and Chevrolat 1841), with *A. mannerheimii* Duponchel and Chevrolat, 1841 as its type species, and the genus redescribed. *Atelodesmis* Buquet, 1857, is a junior synonym and primary homonym of *Atelodesmis* Chevrolat. *Atelodesmis hirticornis* Buquet, 1857 and *A. vestita* Buquet, 1857 are synonymized with *A. mannerheimii*. *Fallaxdesmis* is described as a new genus with *Atelodesmis unicolor* Buquet, 1857 as type species. *Atelodesmis piperita* Bates, 1855 is transferred to *Eupogonius* and newly recorded for the state of Oaxaca, Mexico. A new species for Mexico and Guatemala, *Eupogonius giesberti*, is described. The following new combinations are established: *Fallaxdesmis unicolor* (Buquet, 1857) and *Eupogonius piperita* (Bates, 1855). Illustrations of *A. mannerheimii*, *Fallaxdesmis unicolor*, and the holotypes of *A. hirticornis, A. vestita, A. unicolor, A. piperita* and *Eupogonius giesberti* are included.

**Key Words.** Central America, Neotropical, South America, taxonomy.

## Introduction

The collection of specimens of two desmiphorine species near Tuxtla Gutierrez, Mexico, with clear affinities to species then placed in *Atelodesmis*, prompted a study of the four species (*A. hirticornis* Buquet, 1857*, A. piperita* Bates, 1885*, A. unicolor* Buquet, 1857, and *A. vestita* Buquet, 1857) currently assigned to the genus (Monné 2017). A review of the literature associated with *Atelodesmis* revealed an overlooked earlier authorship of the genus which is corrected here. Other errors or differences in the description of the genus by authors in the mid to late 19th-century were also found and are discussed and summarized with resultant changes in generic assignment of species, with others placed in synonymy. Not surprisingly, examination of many specimens revealed wide and significant variability in dorsal punctation and pubescence in some species assigned to *Atelodesmis*. This has also contributed to the changes. The discussion, presented in the following sections, explains each situation that resulted in a change (or changes). Interestingly, what was thought to be a rather simple description of two new species resembling those in *Atelodesmis*, in the end, bear no affinity with it. Two of the above existing species (*A. hirticornis* and *A. vestita*) are now synonyms of a species described before any of the four listed above, and which does not appear in modern day catalogs or lists (*A. mannerheimii* Duponchel and Chevrolat). A third species becomes the type species of a new genus (*Fallaxdesmis unicolor*) and a fourth is reassigned (*Eupogonius piperita*). Moreover, regarding the Chiapas species which prompted the investigation of *Atelodesmis* in the first place, one was found to be a new species but is described in *Estoloides* (in press) and the other simply represents specimens of *Fallaxdesmis unicolor*.

## Materials and Methods

Photographs were taken with a Canon EOS Rebel T3i DSLR camera, Canon MP-E 65mm f/2.8 1–5× macro lens, controlled by Zerene Stacker AutoMontage software. Measurements were taken in "mm" using a micrometer ocular Hensoldt/Wetzlar-Mess 10 in the Leica MZ6 stereomicroscope, also used in the study of the specimens.

The collection acronyms used in this study are as follows:
**ACMT** American Coleoptera Museum (James Wappes), San Antonio, Texas, USA;
**BMNH** The Natural History Museum, London, United Kingdom;
**FSCA** Florida State Collection of Arthropods, Gainesville, Florida, USA;
**MNHN** Muséum National d'Histoire Naturelle, Paris, France;
**MNRJ** Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Rio de Janeiro, Brazil;
**MZSP** Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil.

## Results

### *Atelodesmis* Chevrolat, 1841

*Atelodesmis* Dejean 1835: 348. Nomen nudum.
*Atelodesmis* Dejean 1836: 374. Nomen nudum.
*Atelodesmis* Chevrolat [in Duponchel and Chevrolat 1841: 286]. Type species, *Atelodesmis mannerheimii* Duponchel and Chevrolat, by monotypy.
*Atelodesmis* Buquet 1857: 334. Type species, *Atelodesmis hirticornis* Buquet [=*Atelodesmis mannerheimii* Duponchel and Chevrolat], by designation of Thomson 1864: 105. Primary homonym, preoccupied by *Atelodesmis* Chevrolat, 1841. Subsequent references: Thomson 1865: 393; 1866: 393; 1868: 108; Lacordaire 1872: 625; Gemminger 1873: 3108 (cat.); Bates1880: 116; Aurivillius 1922: 305 (cat.); Blackwelder 1946: 599 (checklist); Breuning 1974: 180 (rev.); Monné and Giesbert 1994: 215 (checklist); Monné 1994: 62 (cat.); 2005: 375 (cat.); Monné and Hovore 2006: 241 (checklist); Monné 2012: 93; 2017: 328 (cat.). **Syn. nov.**

**Redescription. Head.** Frons transverse, convex; frons and vertex moderately finely and densely punctate, with dense, long, erect setae. Eyes small; distance between upper eye lobes larger than 4 times width of one lobe; lower eye lobes shorter than length of gena, distance between them greater than length of scape. Mandibles curved toward apex, about 1.5 times as long as gena, slightly depressed, externally pubescent on basal half, glabrous on remaining surface. Last segment of labial and maxillary palpi with apex subacute. Antennae slightly surpassing elytral apex in male, varies from almost to just attaining it in female; scape, pedicel and antennomeres III–IV with dense, long, erect dark setae throughout; antennomeres III–IV slightly, gradually widened toward apex, notably longer than remaining antennomeres; antennomeres V–VIII with sparse, long, erect setae ventrally (sometimes absent in all or part of these antennomeres, and sometimes present also on antennomere IX).

**Thorax.** Prothorax varying in length in both sexes, from 1.2 to 1.5 times wider than long (including lateral tubercles); slightly depressed, not cylindrical; sides with large, conical tubercle at about middle, with apex blunt. Pronotum moderately coarsely, densely punctate (sometimes pubescence obscuring punctures); with three indistinct gibbosities (in some specimens absent, the central, or anterolateral gibbosities especially well-marked): one on each side of distal half; another centrally on basal half. Prosternal process somewhat variable in central width, usually wider in female (about 0.75 times width of procoxal cavity) than in male (about 0.5 times of procoxal cavity), usually longitudinally sulcate (ranging from distinctly to slightly). Procoxal cavities closed behind, opened, slightly angulate laterally. Mesoventral process with width variable in both sexes, distal width from about half to 3/4 of mesocoxal cavity, with apex variable (truncate and not emarginate centrally, truncate and slightly emarginate centrally, truncate and deeply emarginate centrally, or subrounded). Elytra parallel-sided on basal half, slightly, gradually narrowed toward apex; coarsely, abundantly punctate on basal third, gradually finer, sparser toward apex; with moderately dense, long erect setae; apex slightly oblique-truncate (sometimes sub-rounded), unarmed. **Legs.** Proportionally short; apex of metafemora usually reaching middle of abdominal ventrite IV; mesotibiae distinctly sulcate dorsally; metatarsomere I about as long as II–III together.

**Abdomen.** Ventrite I (without central process) slightly shorter than II–III together; ventrite V in male uniformly convex, with apex truncate (sometimes with margin slightly concave). Ventrite V in female distinctly depressed centrally close to apex; distal margin truncate, slightly and widely emarginate centrally.

**Remarks.** Dejean (1835: 348) listed the genus *Atelodesmis* in the second edition of his catalogue, with a single Brazilian species name, *A. vestita*. Both names are *nomina nuda*, because the species was not described thus making the genus also not available because no validly described species were included (ICZN 1999: Article 12.1). For a complete discussion of the names and some nomenclatural issues in the second and third Dejean catalogs, see the papers by Bousquet and Bouchard (2013a, b).

Buquet (1857: 334) described *Atelodesmis* for five new species: *A. hirticornis*, *A. vestita*, *A. unicolor*, *A. octomaculata*, and *A. viridescens*, citing the third edition of the Dejean catalog (Dejean 1836: 374) as the origin of the name. Currently, *A. octomaculata* is *Chereas octomaculata* (Calliini), and *A. viridescens* is *Drycothaea viridescens* (Calliini) (combinations by Thomson 1868). According to him, the genus is defined as follows (translated): "Head with medium size, convex dorsally, with frons vertical or slightly inclined forward. Eyes slightly protruding. Antennae 11-segmented, filiform, as long as body, more or less hairy; scape very long, thick, slightly conical, pedicel very short, nearly triangular, the following ones with similar length, except the last two ones that are shorter. In some species, the first four articles are covered with a long pubescence, so thick that they appear much wider than the following. Palpi filiform, with last article terminated in a sharp point. Mandibles weakly long, partly covered by the labrum, which is rounded. Prothorax cylindrical, longer than wide, with a single spine on each side. Scutellum very short, rounded distally. Elytra convex, more or less elongate, truncate at base, rounded at humeri and apex. Metaventrite slightly depressed. Legs barely long, femora more or less swollen, first article of the tarsi the longest. Abdomen with five segments, the last one rounded at apex in male, slightly emarginate in female." Later, Bates (1885) included another species from Mexico, *A. piperita* Bates, 1885. Thus, *Atelodesmis* Buquet currently includes 4 species.

It has been overlooked until now that *Atelodesmis* was described previous to Buquet (1857), in D'Orbigny's (1841) *Dictionnaire universel d'histoire naturelle*. Duponchel and Chevrolat (published in D'Orbigny 1841) (translated): "Genus of tetramerous Coleoptera, family of the Longicornes, established by Mr. Dejean in his last Catalog. According to the place he gives it, this genus belongs to the tribe of the Lamiaires of Mr. Serville, and returns to the branch of the Pogonocheraires of Mr. Mulsant. Mr. Chevrolat assigns to this genus the following characters: Body subcylindrical, slightly flattened dorsally. Elytra regularly rounded at apex of each elytron. Pronotum as long as wide, straight at base and apex, and on each side of which is provided at middle with a small spine, distinctly wide at its base. Head cut straight in front, convex and with a single furrow on frons. Antennae inserted a little above the anterior middle of the eyes, 12- segmented, the first 5 of which are covered with setae so thick that it is almost impossible to distinguish the joints; the next 7 denuded; tarsal claws very robust, simple. Only two species from Brazil are known, the *A. vestita* Dej. and the *A. Mannerheimii*. Here is the description of the latter: entirely dirty yellowish white; elytra streaked with greenish yellow veins; 2 longitudinal lines of the same color on the pronotum. The mandibles, eyes, setae of antennal segments 2-5, and apex of the remaining antennomeres are dark. The authorship of *Atelodesmis* is attributed only to Chevrolat because the dictionary entry (1841: 287) for the genus states "M. Chevrolat assigne à ce g. les charactères suivant"…, while the authorship of *A. mannerheimii* is attributed to Duponchel and Chevrolat because both are cited as authors for the *Atelodesmis* entry without any other qualifications as to the author of the species. *Atelodesmis vestita* is a *nomen nudum* in Duponchel and Chevrolat (1841: 287), because it was not described but simply cited as a Dejean name, and hence does not satisfy the conditions established in Article 12 (ICZN 1999). Accordingly, the type species of *Atelodesmis* Chevrolat, 1841 is *A. mannerheimii* Duponchel and Chevrolat, 1841, by monotypy.

According to Sherborn and Palmer (1899) the title page of volume II of the *Dictionnaire universel d'histoire naturelle*, where *Atelodesmis* was described, is dated as having being published in 1843, although the "Actual date of completed volume, with the authority" is 1842. However, an edition with title page dated 1842 also exists. According to Evenhuis (1990), the final livraison of volume II was published on 30 July 1842, however, the part which included *Atelodesmis* was actually published in November 1841.

***Atelodesmis mannerheimii* Duponchel and Chevrolat, 1841**
(Fig. 1–18)

*Atelodesmis vestita* Dejean 1835: 348. Nomen nudum.
*Atelodesmis vestita* Dejean 1836: 374. Nomen nudum.
*Atelodesmis mannerheimii* Duponchel and Chevrolat 1841: 287.
*Atelodesmis hirticornis* Buquet 1857: 335; Thomson 1864: 105; 1866: 105; 1868: 108; Lacordaire 1872: 625; Gemminger 1873: 3108 (cat.); Thomson 1878: 17 (type); Aurivillius 1922: 305 (cat.); Blackwelder 1946: 599 (checklist); Zajciw 1958: 16 (distr.); Buck 1959: 598 (distr.); Breuning 1963: 513 (cat.); 1974: 181 (rev.); Zajciw 1974: 72 (distr.); Monné 1994: 62 (cat.); Monné and Giesbert 1994: 215 (checklist); Monné 2005: 375 (cat.); Monné and Hovore 2006: 241 (checklist); Monné et al. 2010: 248 (distr.); Monné 2012: 93 (cat.); 2017: 329 (cat.). **Syn. nov.**
*Atelodesmis vestita* Buquet 1857: 335; Thomson 1868: 108; Lacordaire 1872: 625; Gemminger 1873: 3108 (cat.); Thomson 1878: 17 (type); Aurivillius 1922: 305 (cat.); Blackwelder 1946: 599 (checklist); Buck 1959: 598 (distr.); Breuning 1963: 513 (cat.); 1974: 182 (rev.); Zajciw 1974: 72 (distr.); Monné and Giesbert 1994: 215 (checklist); Monné 1994: 63 (cat.); 2005: 376 (distr.); 2017: 329 (cat.). **Syn. nov.**

**Remarks.** According to Buquet (1857), *A. vestita* differs from *A. hirticornis* by its size, which is somewhat larger; its glossy black color with yellowish spots; the head is finely punctate in *A. hirticornis*, while in *A. vestita* it is very strongly punctate; and the prothorax is slightly wider than long in *A. hirticornis*, and longer than wide in *A. vestita*. However, all these differences are only variations within a single species, and can occur in differing combinations. For example, there are small, very densely pubescent specimens with an elongate prothorax as well as much larger, sparsely pubescent specimens with a prothorax that is distinctly wider than long. These differences occur independently of the sex and collection locality. The difference regarding punctation pointed out by Buquet (1857) is mostly due to the pubescence, which can obscure the punctures (sometimes nearly completely). It is clear from examining many specimens that densely pubescent specimens tend to correspond to "*hirticornis*". In some, the pubescence on the head can be sparse (sometimes nearly absent) on the entire frons and on the center of the vertex (as in the holotype of *A. vestita*), or in others, notably dense (as in the holotype of *A. hirticornis*), although intermediate forms between these two extremes are also found. The same occurs in the pronotal pubescence, which can be nearly absent centrally (as in the holotype of *A. vestita*) or dense throughout, especially on a central band (as in the holotype of *A. hirticornis*) but, again there are intermediate forms. Regarding the elytral pubescence, there are two extreme forms, those with very similar densely pubescent maculae, including their placement, corresponding to typical *A. hirticornis*, and those with less densely pubescent maculae. Again, intermediate forms exist with sparser maculae than in the holotype of *A. vestita*. In summary, the variation in pronotal shape, dorsal pubescence and punctures, all found in varying combinations, clearly indicates that *A. hirticornis* and *A. vestita* are the same, rather variable species.

According to Thomson (1864: 105), "*A. mannerheimii* Dej. Cat. p. 374" is a synonym of *A. hirticornis*. Also, according to Gemminger (1873: 3108), "*Mannerheimi* [*sic*] Dejean *i. litt.*—Brasilia" is a synonym of *A. hirticornis*. It is difficult to ascertain how these authors arrived at this conclusion, as there is no citation of *Atelodesmis mannerheimii* in Dejean's catalogues (1835, 1836). One can only guess that they were aware of the fact that the name *A. mannerheimii* was published in Duponchel and Chevrolat (1841) and came to an erroneous conclusion that it had originated from Dejean's collection.

The holotype of *A. mannerheimii* is probably in the BMNH in the Dejean, or Chevrolat, collection. Although we could not examine the holotype, the original description of the species, as well as that of the genus, and that Brazil was the origin of all the taxa, supports the conclusion that *A. vestita* and *A. hirticornis* are synonyms of *A. mannerheimii*. In this case, it is not possible to apply Article 23.9 of ICZN (1999) and regard one of the junior synonyms as the valid name of this species because the conditions demanded by Article 23.9.1.2 are not present.

**Material examined.** BRAZIL, *Minas Gerais*: Belo Horizonte, 1 male, no date indicated, O. Monte col. (MZSP); Passa Quatro (915 m), 1 male, 12.II.1922, Zikán col. (MZSP); (Fazenda dos Campos), 1 female, XI.1917, Zikán col. (MZSP); Poços de Caldas, 2 males, 12.XII.1970, A. Becher col. (MNRJ). *Espírito Santo*: Linhares (Parque Sooretama), 1 male, 19.X.1959, no collector indicated (MNRJ). *Rio de Janeiro*: Rio de Janeiro (Corcovado), 1 male, 09.XI.1956, Zajciw col. (MNRJ); 1 female, 14.XII.1956, Zajciw col. (MNRJ). *São Paulo*: Peruíbe, 1 male, 03.XII.1938, ex Zellibor collection; São Paulo, 1 male, no collector and date indicated (MZSP); (Saúde), 1 male, 27.XII.1914, Melzer col. (MZSP). *Santa Catarina*: Rio Vermelho, 1

male, no date indicated, ex Diringshofen collection (MZSP); 1 male, 2 females, XII.1948, ex Diringshofen collection (MZSP); 1 male, XII.1948, A. Maller col. (MZSP); 1 female, II.1950, ex Diringshofen collection (MZSP); 1 male, IV.1950, ex Diringshofen collection (MZSP); 1 female, I.1952, ex Diringshofen collection (MZSP); 1 male, X.1952, ex Diringshofen collection (MZSP); 1 female, I.1953, ex Diringshofen collection (MZSP); 1 male, XII.1955, ex Diringshofen collection (MZSP); 1 female, I.1957, ex Diringshofen collection (MZSP); 2 males, I.1958, ex Diringshofen collection (MZSP); 1 male, 3 females, II.1960, ex Diringshofen collection (MZSP); 2 males, 3 females, I.1961, ex Diringshofen collection (MZSP); 2 males, 1 female, III.1961, ex Diringshofen collection (MZSP); 1 female, III.1962, ex Diringshofen collection (MZSP); 1 female, II.1963, ex Diringshofen collection (MZSP); 6 males, 5 females, III.1963, ex Diringshofen collection (MZSP); 4 females, III.1964, ex Diringshofen collection (MZSP); 1 male, XII.1966, Fragoso col. (MNRJ); (São Bento do Sul), 2 males, 2 females, XI.1963, ex Diringshofen collection (MZSP). *Rio Grande do Sul*: Porto Alegre, 1 female, Buck col. (MZSP).

**Geographical distribution.** Brazil (Minas Gerais, Espírito Santo, Rio de Janeiro, São Paulo, Paraná, Santa Catarina, Rio Grande do Sul).

***Fallaxdesmis* gen. nov.**

**Type species.** *Atelodesmis unicolor* Buquet, 1857, by present designation.

**Etymology.** Latin, *fallax* = fallacious, spurious, deceptive; Greek, *δέομη*, a bouquet. Allusive to the dense, thick erect setae which essentially hide the basal segments of the antennae. Feminine gender.

**Redescription. Head.** Frons transverse, convex; frons and vertex moderately finely and densely punctate, with dense, long, erect setae. Eyes moderately large; distance between upper eye lobes in male from 2.0 to 2.5 times width of one lobe; distance between upper eye lobes in female 3.0 times width of one lobe; lower eye lobes from as long as gena to slightly longer, distance between them more than length of scape. Mandibles curved toward apex, about 1.5 times as long as gena, slightly depressed, basal half of outer side pubescent, remaining surface glabrous. Last segment of labial and maxillary palpi subacute at apex. Antennae surpassing elytral apex by about 2.5 segments in male and about 1 segment in female; scape, pedicel and antennomeres III–IV with moderately dense, long, erect dark setae ventrally; scape, pedicel and antennomere III with dense, moderately short sub-erect setae dorsally and laterally; antennomere IV with dense, moderately short, sub-erect setae dorsally and laterally on basal 2/3, distinctly sparser on distal third; antennomeres III–IV cylindrical, not widened toward apex, longer than remaining antennomeres; antennomeres V–VIII with sparse, long, erect setae ventrally.

**Thorax.** Prothorax with length variable in both sexes, from 1.2 to 1.4 times wider than long (including lateral tubercles); sides with small, conical tubercle at about middle (sometimes nearly absent), giving cylindrical appearance to the prothorax. Pronotum moderately coarsely, densely punctate (punctures mostly obscured by pubescence); with three slightly distinct gibbosities: one on each side of distal half; another centrally on basal half. Prosternal process with central width narrower than half of procoxal cavity, longitudinally sulcate centrally. Procoxal cavities closed behind, opened, slightly angulate laterally. Mesoventral process from truncate to slightly rounded at apex, distal width about half that of mesocoxal cavity. Elytra sub parallel-sided on basal half, gradually narrowed toward apex on distal half; pubescence obscuring punctures; with moderately long, erect setae throughout; apex slightly oblique truncate (sometimes subrounded), unarmed. **Legs.** Proportionally short; apex of metafemora usually reaching apex of abdominal ventrite III, sometimes middle of abdominal ventrite IV; mesotibiae distinctly sulcate dorsally; metatarsomere I about as long as II–III together.

**Abdomen.** Ventrite I (without central process) about 0.8 times length of II–III together; ventrite V in male uniformly convex, with apex truncate (sometimes with margin slightly concave); ventrite V in female with transverse sulcus near apex, and distal margin truncate, slightly and widely emarginate centrally.

**Remarks.** *Fallaxdesmis* differs from *Atelodesmis* by having the lower eye lobes longer than gena; antennomeres III–IV not widened toward apex; long setae, usually sparse on scape, pedicel and antennomeres III–IV, suberect and distinctly shorter both dorsally and laterally; and lateral tubercle of prothorax small

(giving cylindrical appearance to the prothorax). In *Atelodesmis* the lower eye lobes are shorter than genae, antennomeres III–IV gradually and slightly widened from base to apex; abundant, long setae on scape, pedicel and antennomeres III–IV and bristly throughout; and lateral tubercle of prothorax large (giving a slightly depressed, non-cylindrical appearance to the prothorax). *Fallaxdesmis* differs from *Micratelodesmis* Martins and Galileo, 2012, primarily by the erect setae on basal segments of antennae distinctly shorter (on antennomeres III–IV from about as long as diameter of segment to slightly longer), and elytra narrowed toward apex on distal half. In *Micratelodesmis*, the erect setae on basal antennomeres are longer (on antennomeres III–IV two times longer than diameter of segment), and elytra gradually widened toward distal third.

### *Fallaxdesmis unicolor* (Buquet, 1857), comb. nov.

(Fig. 19, 21–26)

*Atelodesmis unicolor* Buquet 1857: 336; Thomson 1868: 108; Lacordaire 1872: 625; Gemminger 1873: 3108 (cat.); Thomson 1878: 18 (type); Bates 1880: 116; Aurivillius 1922: 305 (cat.); Blackwelder 1946: 599 (checklist); Breuning 1963: 513 (cat.); Breuning 1974: 182 (rev.); Chemsak et al. 1992: 118 (checklist); Monné 1994: 63 (cat.); Monné and Giesbert 1994: 215 (checklist); Noguera and Chemsak 1996: 405 (checklist); Monné and Hovore 2006: 241 (checklist); Toledo et al. 2002: 530 (distr.); Monné 2005: 375 (cat.); 2017: 329 (cat.).

*Atelodesmis unicolor* was originally described from Mexico, without specific locality. Subsequently, Bates (1880), recorded it from Cordova = Córdoba (Veracruz).

Breuning (1974) separated *A. hirticornis* and *A. vestita* from *A. unicolor* and *A. piperita* in his key, based on the length of lower eye lobes compared with the genae. According to him, the first two species have the lower eye lobes as long as the genae, while in the last two they are distinctly longer than the genae. Although the redescription of *A. unicolor* agrees very well with specimens of the species, the lower eye lobes are not distinctly longer than the genae, rather they are about as long as genae to slightly longer. Still, according to Breuning (1974), Buquet described the species based on "specimens" (suggesting more than 1) from Mexico. However, Buquet (1857) only gave dimensions for a single specimen, thus suggesting only a holotype, and not several syntypes, exist.

**Material examined.** MEXICO, *Chiapas*: 17 km W Tuxtla Gutiérrez, 5 males, 6 females, 4–6.X.1986, E. Giesbert col. (FSCA); (3300′), 2 males, 5 females, 1–8.VII.1986, Wappes col. (ACMT); 2 females, 27–30. VI.1986, Wappes col. (1 female ACMT, 1 female MZSP); 1 female, 1 male, 21–25.VI.1987, E. Giesbert col. (FSCA); 1 female, 27.VI–08.VII.1986, E. Giesbert col. (FSCA); 3 km W Cinco Cerros, 1 male, 26.VI.1987, Wappes col. (MZSP).

**Geographical distribution.** Mexico (Veracruz, Chiapas).

### *Eupogonius piperita* (Bates, 1885), comb. nov.

(Fig. 20, 27–35)

*Atelodesmis piperita* Bates 1885: 352; Aurivillius 1922: 305 (cat.); Blackwelder 1946: 599 (checklist); Breuning 1963: 513 (cat.); Chemsak and Linsley 1970: 408 (lectotype); Breuning 1974: 182 (rev.); Chemsak et al. 1992: 118 (checklist); Monné 1994: 62 (cat.); Monné and Giesbert 1994: 215 (checklist); Noguera and Chemsak 1996: 405 (distr.); Monné 2005: 375 (cat.); Monné and Hovore 2016: 241 (checklist); Monné 2017: 329 (cat.).

Lacordaire (1872) separated Desmiphorini from Apodasyini based on the position of the head: retractile in the former, nonretractile in the latter. Furthermore, he separated these two tribes from Estolini based on the shape of the mesocoxal cavities: open in Desmiphorini and Apodasyini, closed in Estolini. However, the position of the head is variable in genera of Desmiphorini, making the separation of these tribes, based on this feature, not useful. The shape of the mesocoxal cavities is identical in all species of Desmiphorini, Apodasyini and Estolini, making the separation between these tribes, as proposed by Lacordaire in his key, impossible.

Linsley and Chemsak (1984) correctly considered the mesocoxal cavities closed in these three tribes. Actually, the mesocoxal cavities in all species of Desmiphorini (including Estolini and Apodasyini that were examined) have the same kind of mesocoxal cavities: closed, as in the middle image in figure 1 from

Linsley and Chemsak (1984), and not as in the lower image of the same figure. Thus, Lacordaire could not be considering the former as open and the latter as closed.

Linsley and Chemsak (1984) also separated Estolini from Apodasyini in their key based on the presence of a dorsal sulcus on the mesotibiae of the former, which is absent in the latter.

Although currently Estolini and Apodasyini are synonyms of Desmiphorini (Monné 2017), the previous comments are pertinent, because *Atelodesmis* belongs to Estolini *sensu* Lacordaire (1872) and Linsley and Chemsak (1984) (mesotibiae sulcate dorsally), while *Atelodesmis piperita* belongs to Apodasyini (mesotibiae not sulcate dorsally). Consequently, *E. piperita* cannot be placed in *Atelodesmis*. It agrees much more closely with *Eupogonius* LeConte, 1852 (a genus that would belong to Apodasyini).

Both Breuning (1974) and Linsley and Chemsak (1984) defined *Eupogonius* as having slender antennae, fringed with long setae, and lower eye lobes longer than the gena. Although usually they are distinctly long, the erect setae on the antennae of *Eupogonius* are somewhat variable in length. Also, the erect setae on the elytra are typically longer and more abundant. However, we believe that these features alone do not require a new genus for this species. Thus, we formally transfer *Atelodesmis piperita* to *Eupogonius*.

Additionally, a new state record (Oaxaca), for the species, is recorded for Mexico.

**Material examined.** MEXICO, *Chiapas*: 17 km W Tuxtla Gutiérrez, 3 males, 2 females, 4–6.X.1986, E. Giesbert col. (2 males, 2 females FSCA, 1 male MZSP); 1 male, 27.VI–08.VII. 1986, E. Giesbert col. (FSCA); (3300′), 1 male, 1 female, 27–30.VI.1986, Wappes col. (ACMT); 1 female, 1–8.VII.1986, Wappes col. (ACMT); 1 male, 1 female, 21–25.VI.1987, E. Giesbert col. (FSCA); 1 female, 21–25.VI.1987, Wappes col. (ACMT). *Oaxaca*: 33 km N Tapanetapec, 1 male, 18–22.VI.1987, Wappes col. (ACMT). COSTA RICA, *Puntarenas*: Monteverde, 1 male, 1–3.VI.1978, E. Giesbert col. (FSCA); 4–6 km S Santa Elena, 1 male, 4–7.VI.1980, Wappes col. (ACMT); 15 km S Santa Elena, 1 male, 23.XII.1985, E. Giesbert col. (FSCA).

**Geographical distribution.** Mexico (Veracruz, Chiapas, Oaxaca), Costa Rica.

***Eupogonius giesberti* sp. nov.**
(Fig. 36–41)

**Description. Holotype female.** Head and pronotum black; ventral side of body mostly dark brown; mouthparts light reddish brown; antennae dark brown on basal segments, gradually dark reddish brown toward distal segments; elytra reddish brown; femora dark reddish brown; tibiae black on base, gradually dark reddish brown toward apex; tarsomeres dark reddish brown except claws black and distal area of tarsomere V dark brown.

**Head.** Frons, vertex, antennal tubercles, area behind eyes and genae with dense yellow pubescence obscuring integument, sparser on triangular area each side of center of vertex, close to prothorax, somewhat longer, perpendicular to ocular surface around eyes; with moderately abundant, long, erect, brown and yellow setae throughout. Postclypeus with decumbent, short yellow setae partially obscuring integument, with sparse long, erect dark setae interspersed laterally. Labrum coplanar on basal third with anteclypeus, inclined on distal 2/3; finely punctate on basal third, slightly more coarsely punctate on distal 2/3; with sparse, short, decumbent yellow setae on basal third, with long dark setae directed anteriorly on inclined area. Mandibles triangularly depressed, densely punctate, with dense yellow pubescence on basal half of outer side, smooth, glabrous on remaining surface. Lower eye lobes 1.65 times length of gena (area directly under lobe); with one row of ommatidia connecting lobes (Fig. 40); distance between upper eye lobes 0.41 times length of scape; in frontal view, distance between lower eye lobes 1.03 times length of scape. Antennae 1.57 times elytral length, reaching elytral apex at apex of antennomere IX; with white pubescence not obscuring integument, ventrally sparser after IV, forming dorsal basal rings on antennomeres V–XI (less distinct toward XI); scape, pedicel and antennomeres III–IV with abundant, long, erect, dark setae throughout; antennomeres V–XI with long, erect dark setae ventrally, gradually sparser toward XI; antennal formula (ratio) based on length of antennomere III: scape = 0.76; pedicel = 0.11; IV = 1.05; V = 0.64; VI = 0.58; VII = 0.56; VIII = 0.52; IX = 0.46; X = 0.38; XI = 0.44.

**Thorax.** Prothorax slightly wider than long, sides, at about middle, barely tuberculate. Pronotum with dense yellow pubescence obscuring integument, paler basally and distally, sparser near distal

margin, absent on slightly elevated, drop-shaped, gibbosity on center of basal half, one moderately large, circular depression on each side of central gibbosity, another two laterally between base and lateral tubercle, and two more between lateral tubercle and distal margin (only a small one on left side); with moderately abundant, long, erect, yellow setae throughout, except on central gibbosity; each depression with one long, erect, dark seta. Sides of prothorax with dense yellow pubescence obscuring integument. Prosternum and mesoventrite with yellowish white pubescence obscuring integument, with long, erect yellowish white setae interspersed. Mesanepisternum, mesepimeron and metanepisternum with yellow pubescence obscuring integument; metaventrite with white pubescence partially obscuring integument, yellower close to coxal cavities laterally, with long, erect, white setae interspersed. Scutellum with paler yellow pubescence obscuring integument. **Elytra.** Coarsely, moderately sparsely punctate on basal third, gradually finer, sparser toward apex; with grayish white pubescence partially obscuring integument, with long, erect grayish white setae interspersed; apex slightly rounded. **Legs.** Femora and tibiae with yellowish white pubescence partially obscuring integument, with long, erect, sparse yellowish white setae interspersed.

**Abdomen.** Ventrites with white pubescence nearly obscuring integument, except narrow, pale yellow pubescent band at apex of ventrites I–IV; with moderately sparse long, erect white setae; distal area of ventrite V transversely depressed, with apex truncate.

**Variation.** Distal antennomeres vary from light to dark reddish brown; elytra light reddish brown; femora lighter reddish brown; pronotum with one additional circular depression near central gibbosity; laterobasal depression of pronotum distinctly smaller than the others at left side; part of lateral depressions of pronotum absent.

**Dimensions (mm), holotype female/paratypes female.** Total length, 10.08/8.23–8.41; prothoracic length, 2.02/1.62–1.71; basal prothoracic width, 2.09/1.68–1.71; distal prothoracic width, 1.89/1.62–1.71; maximum prothoracic width, 2.22/1.82–1.84; humeral width, 2.88/2.38–2.43; elytral length, 7.15/5.94–6.07.

**Type material.** Holotype female from MEXICO, *Chiapas*: 17 km W Tuxtla Gutiérrez (3300′), 27.VI–8.VII.1986, E. Giesbert col. (FSCA). Paratypes—1 female, same data as holotype (FSCA). GUATEMALA, *Huehuetenango*: Finca Zapotal (Rio Lagarteros; 970 m), 1 female, 04.VI.1997, E. Giesbert and J. Monzon col. (MZSP).

**Remarks.** *Eupogonius giesberti* sp. nov. differs from the other species assigned to the genus by the circular depressions on pronotum, which are absent in all other *Eupogonius* species. It is somewhat similar to *E. pubescens* LeConte, 1873, but differs by the pubescence on head and prothorax visibly contrasting with that of the elytra (not contrasting in *E. pubescens*). The circular depressions on the pronotum give the new species an appearance similar to some species of *Mecas* LeConte, 1852 (Phytoeciini).

**Etymology.** The new species is named after Edmund Giesbert, collector of the type series, for his many, important contributions to our knowledge of American Cerambycidae.

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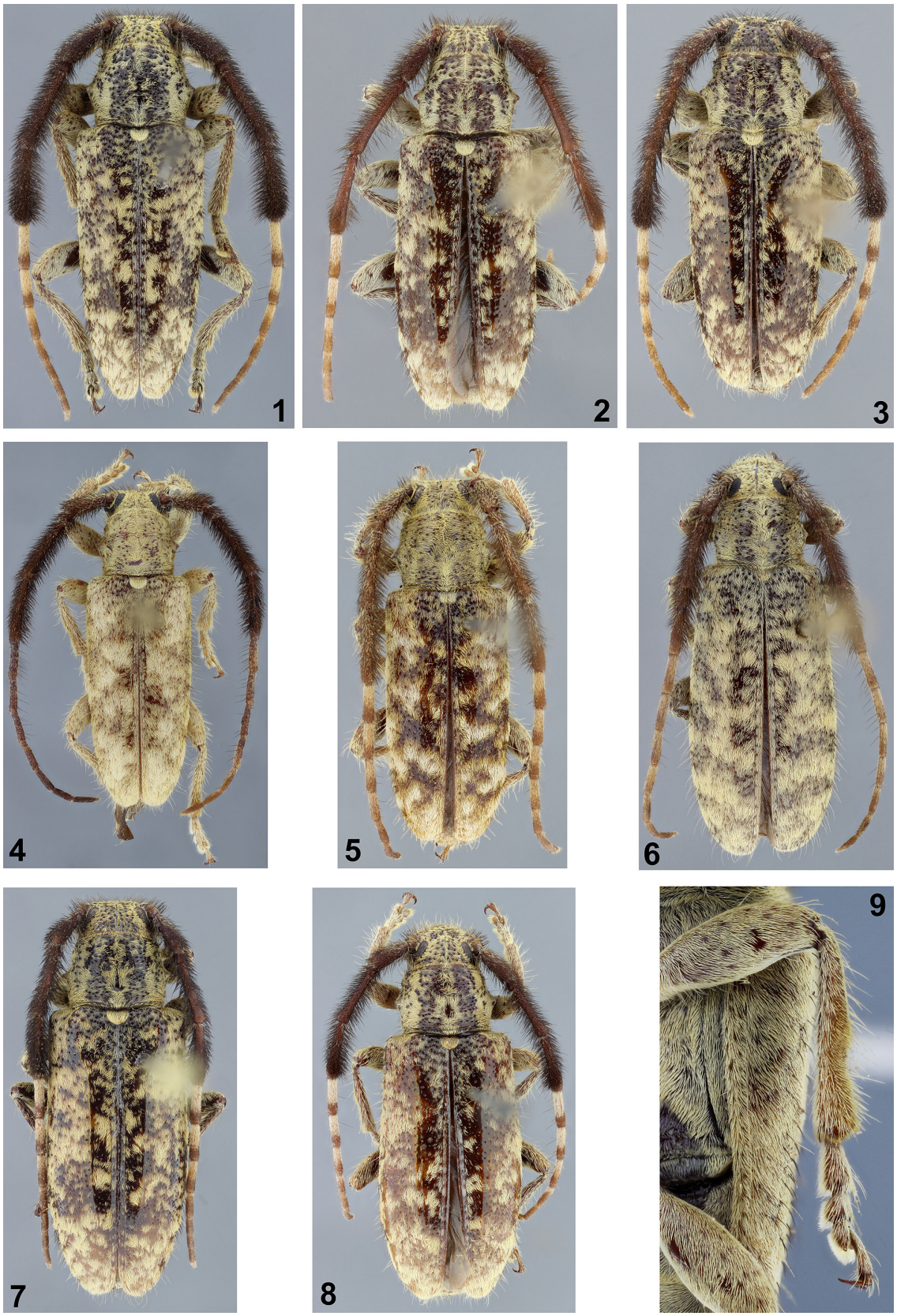
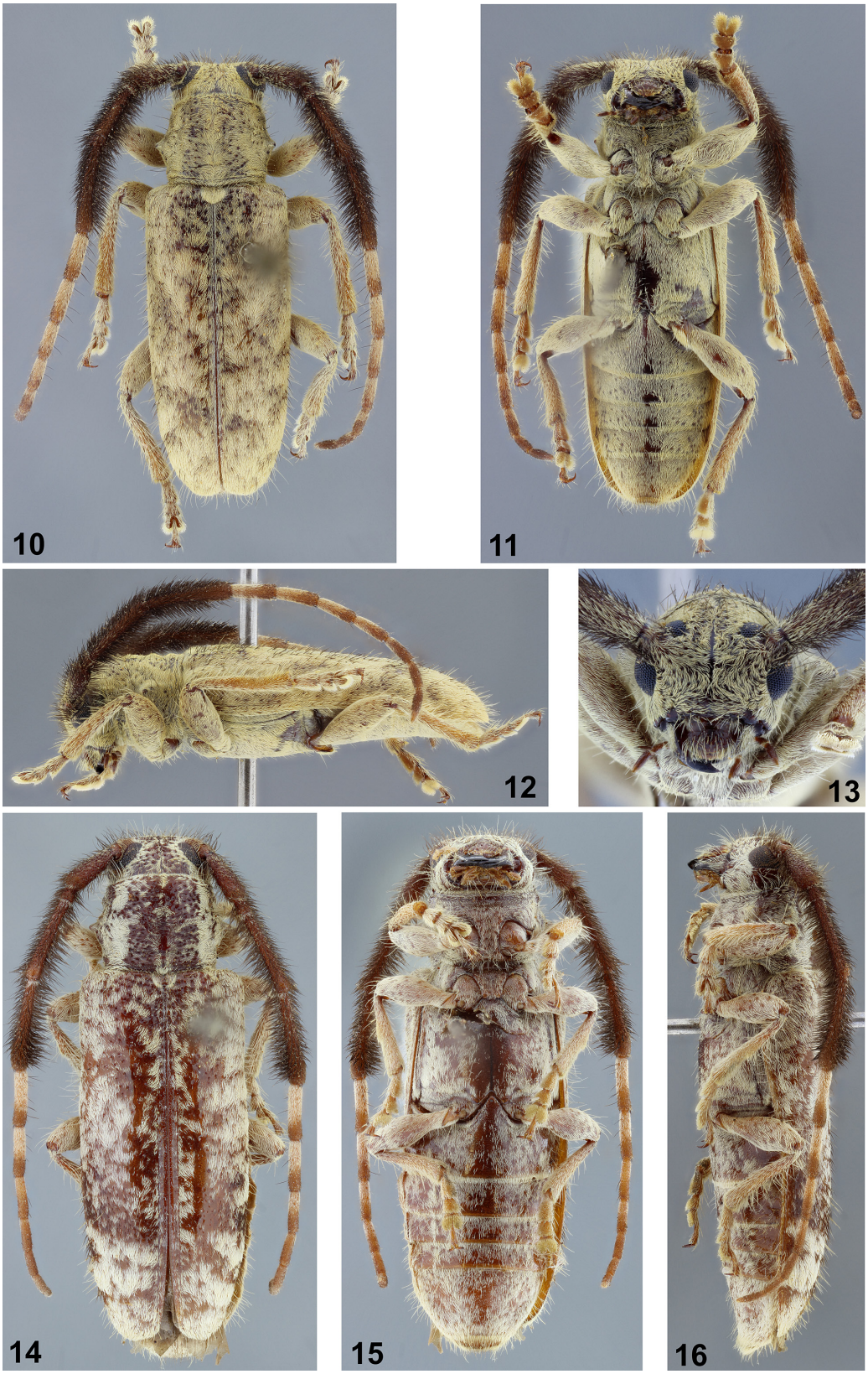
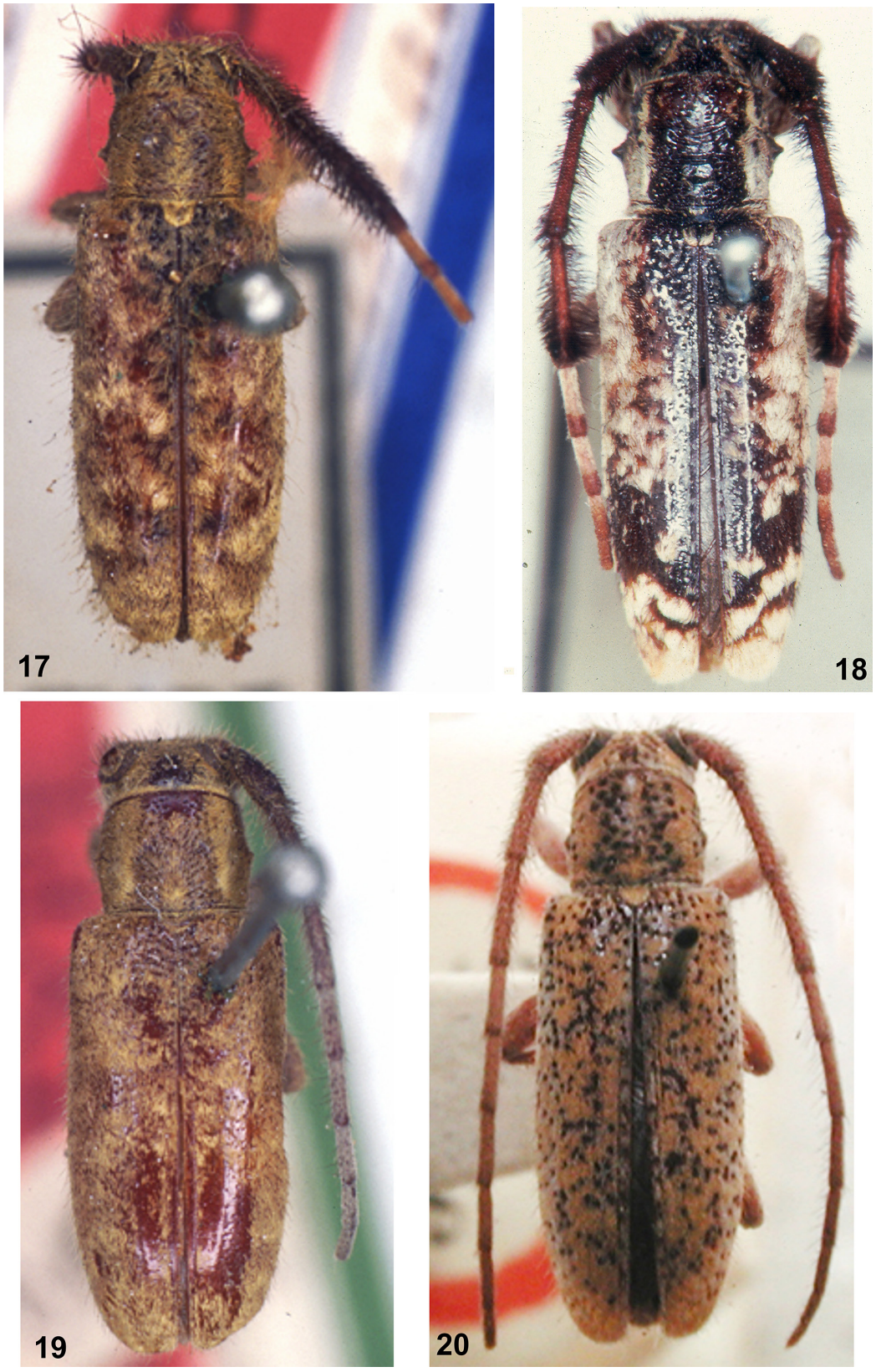


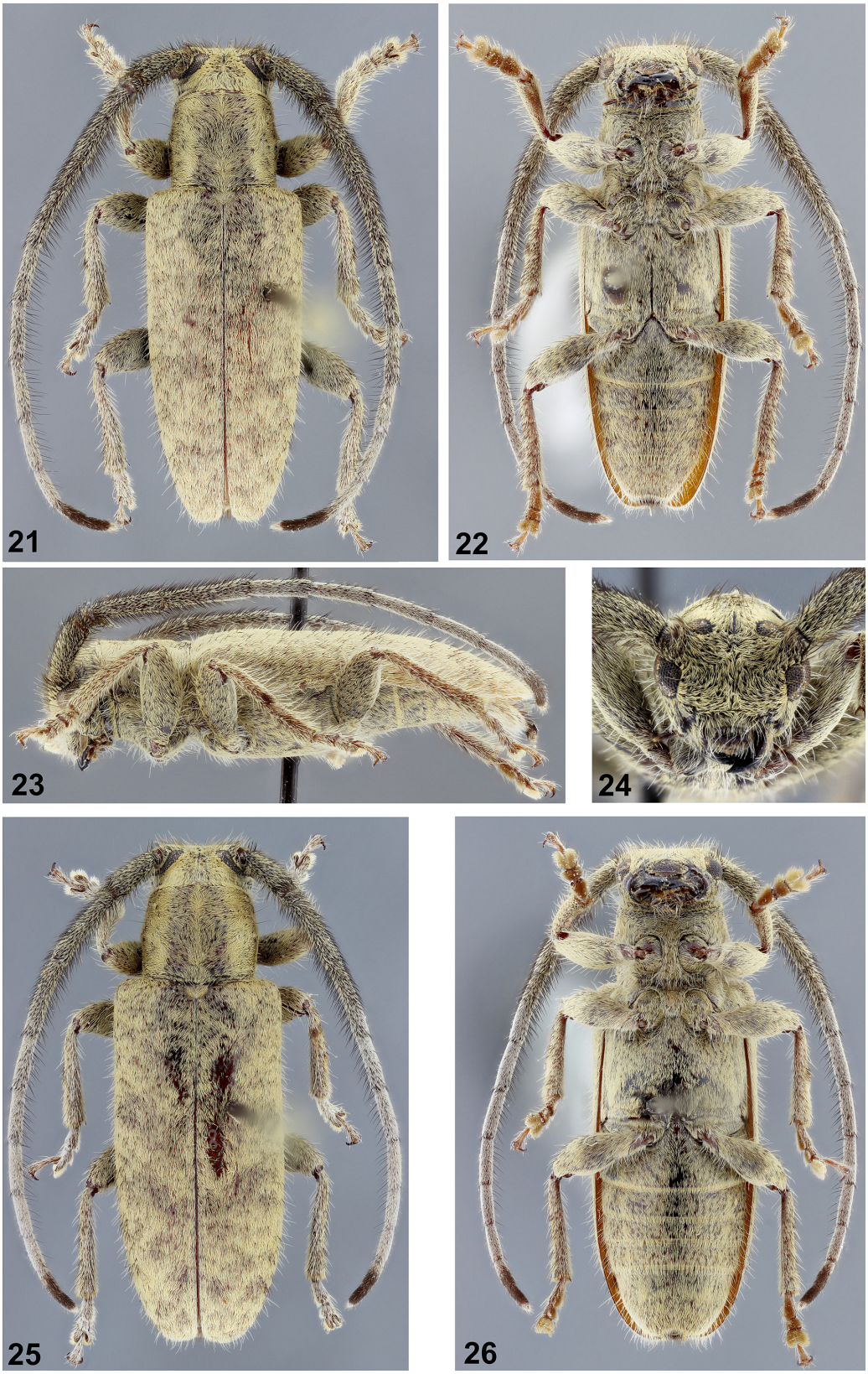

**Figures 1–9**. *Atelodesmis mannerheimii*. **1–5**) Male, dorsal view. **6–8**) Female, dorsal view. **9**) Male, mesotibia.



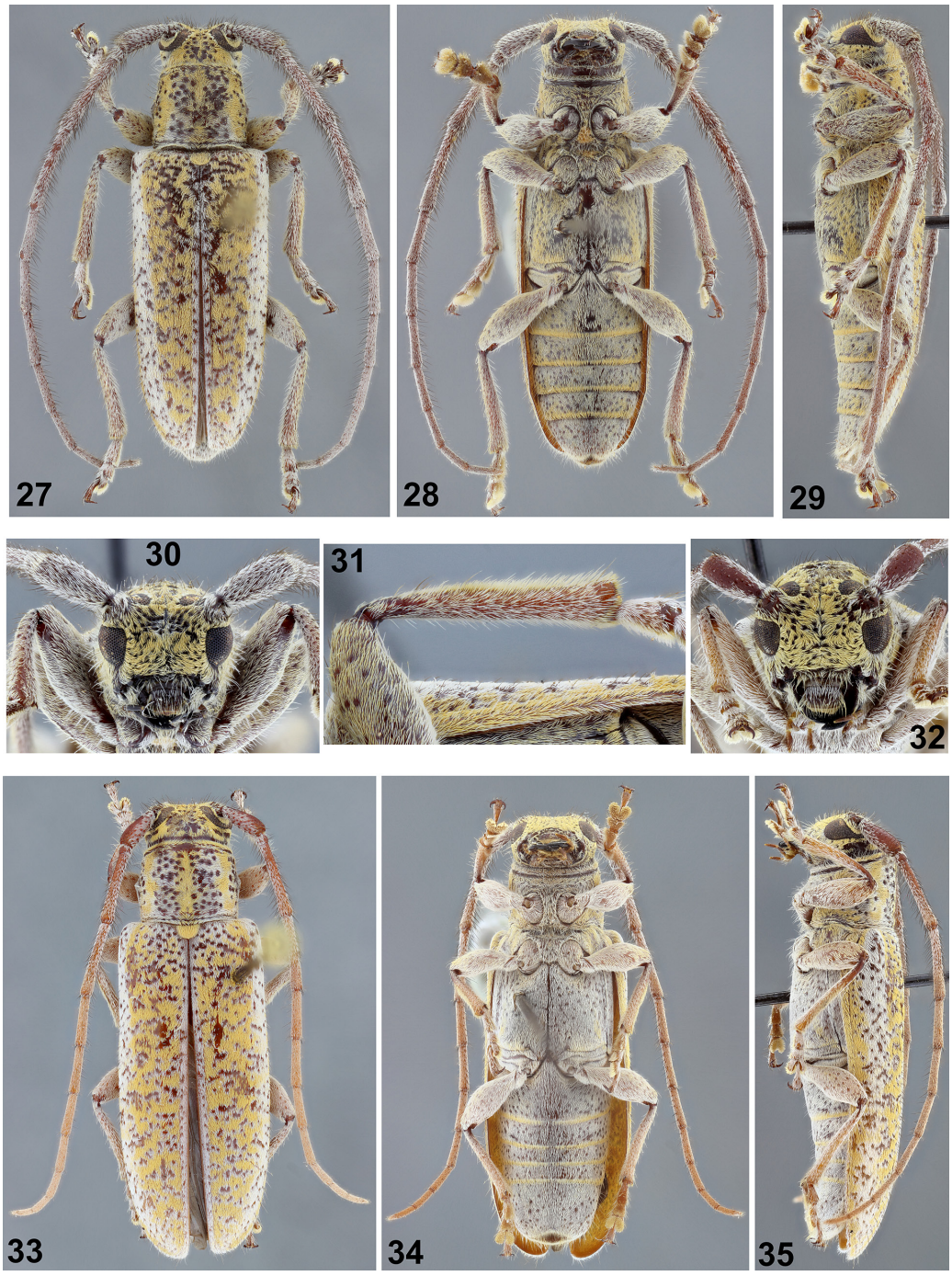

**Figures 10–16**. *Atelodesmis mannerheimii*. **10**) Male, dorsal view. **11**) Male, ventral view. **12**) Male, lateral view. **13**) Male head, frontal view. **14**) Female, dorsal view. **15**) Female, ventral view. **16**) Female, lateral view.



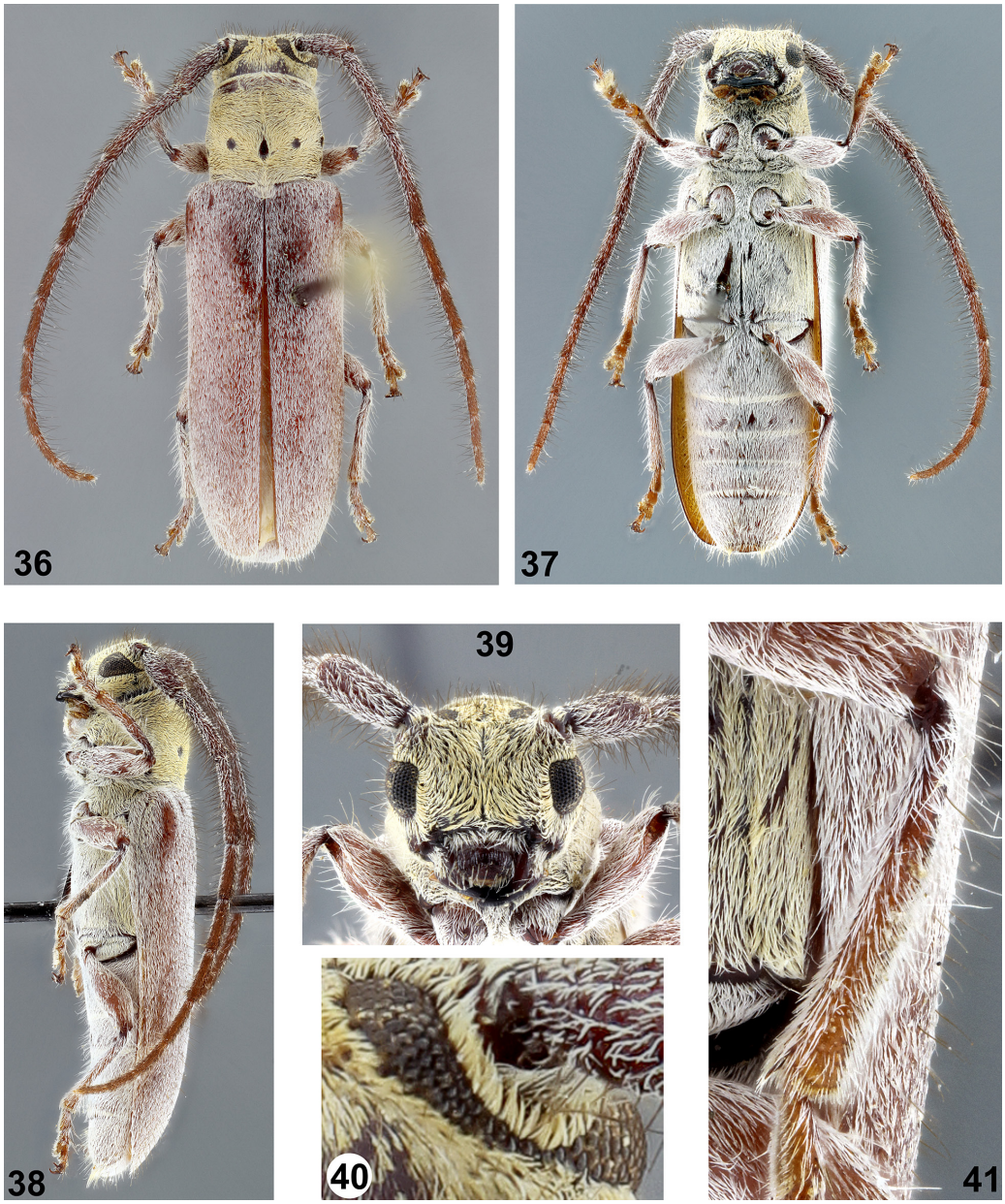

**Figures 17–20**. *Atelodesmis* spp. **17**) *Atelodesmis hirticornis*, holotype. **18**) *Atelodesmis vestita*, holotype. **19**) *Atelodesmis unicolor*, holotype. **20**) *Atelodesmis piperita*, holotype.




**Figures 21–26**. *Fallaxdesmis unicolor*. **21**) Male, dorsal view. **22**) Male, ventral view. **23**) Male, lateral view. **24**) Male head, frontal view. **25**) Female, dorsal view. **26**) Female, ventral view.




**Figures 27–35**. *Eupogonius piperita*. **27**) Male, dorsal view. **28**) Male, ventral view. **29**) Male, lateral view. **30**) Male head, frontal view. **31**) Male, mesotibia. **32**) Female head, frontal view. **33**) Female, dorsal view. **34**) Female, ventral view. **35**) Female, lateral view.




**Figures 36–41**. *Eupogonius giesberti*, holotype female. **36**) Dorsal view. **37**) Ventral view. **38**) Lateral view. **39**) Head, frontal view. **40**) Right eye. **41**) Mesotibia.